

Climate change has a firm grip

Researchers say that even if nations can get carbon dioxide levels under control, it would take 1,000 years or longer for the climate changes already triggered to be reversed.

By Thomas H. Maugh II Los Angeles Times

January 27, 2009

Even if by some miracle the nations of the world could bring carbon dioxide levels back to those of the pre-industrial era, it would still take 1,000 years or longer for the climate changes already triggered to be reversed, scientists said Monday.

The gas already here and the heat that has been absorbed by the ocean will exert their effects for centuries, according to an analysis published in the Proceedings of the National Academy of Sciences.

Over the long haul, the warming will melt the polar icecaps more than had previously been estimated, raising ocean levels substantially, the report said.

And changes in rainfall patterns will bring droughts to the American Southwest, southern Europe, northern Africa and western Australia comparable to those that caused the 1930s Dust Bowl in the U.S.

"People have imagined that if we stopped emitting carbon dioxide, the climate would go back to normal in 100 years, 200 years," lead author Susan Solomon, a senior scientist at the National Oceanic and Atmospheric Administration, said in a telephone news conference. "That's not true."

The changes will persist until at least the year 3000, said Solomon, who conducted the study with colleagues in Switzerland and France.

Scientists familiar with the report said it emphasized the need for immediate action to control emissions.

"As a climate scientist, this was my intuition," said geoscientist Jonathan T. Overpeck of the University of Arizona. "But they have done a really good job of working through the details and . . . make a case that the situation is more dire than we thought if we don't act quickly and aggressively to curb carbon dioxide emissions."

Kevin Trenberth, head of climate analysis at the National Center for Atmospheric Research in Boulder, Colo., said the persistence of climate change caused by global warming was "poorly appreciated by policymakers and the general public, and it is real."

"The policy relevance is clear: We need to act sooner, even if there is some doubt about exactly what will happen, because by the time the public and policymakers really realize the changes are here, it is far too late to do anything about it," Trenberth said.

The report came as President Obama ordered the Environmental Protection Agency to consider allowing states the right to enact auto emission standards stricter than federal rules.